

## Abstract

Solid state devise for the calibration of microplate fluorescence and absorption readers and spectrometers is described. When present in a single moiety, the disclosed device can tell if the lamp photomultiplier tube and optical alignment of the microplate reader or spectrometer deviates from its true value. When present as graded calibration pieces, the disclosed device can be used to calibrate a fluorescence or absorption reader. Calibration pieces are shaped, polished and coated with color absorbing or fluorescent standard to fit in microplate holding trays or spectrometers which are commercially available. Solid state devices are stable and durable and very inert to manipulations and thus are more reliable and unfaltering than solutions for absorption and fluorescence microplate readers or spectrometers.